

AMENDMENT TO THE CLAIMS

1-234 (Cancelled)

235. (New) An isolated polynucleotide a) comprising SEQ ID NO: 61, 63, 65, 69, 73, 74, 75, 76, 77, 78, 79, 81, 83, 85, 87, 89, 91, 93, 94, 95, 96, 97, 99, 101, 103, 105, 107, 109, or 111, or the complement thereof, or a polynucleotide which hybridizes to the complement of any one of SEQ ID NO: 61, 63, 65, 73, 74, 75, 76, 77, 78, 79, 81, 83, 85, 87, 89, 91, 93, 94, 95, 96, 97, 99, 101, 103, 105, 107, 109, or 111, under low stringency hybridization conditions and encodes a polypeptide having cellulase, hemicellulase, exo-1,4- β -cellobiohydrolase, exo-1,3- β -D-glucanase, β -glucosidase, endoglucanase, L-arabinase, α -arabinosidase, galactanase, galactosidase, mannanase, mannosidase, xylanase, xylosidase, protease, glucanase, or esterase activity or b) encoding a polypeptide comprising SEQ ID NO: 62, 64, 66, 70, 80, 82, 84, 86, 88, 90, 92, 100, 102, 104, 106, 108, 110, or 112, or an enzymatically active fragment thereof.

236. (New) The isolated polynucleotide of claim 235, wherein said polynucleotide encodes a fusion polypeptide comprising a first polypeptide and a second peptide, wherein said first polypeptide has cellulase, hemicellulase, exo-1,4- β -cellobiohydrolase, exo-1,3- β -D-glucanase, β -glucosidase, endoglucanase, L-arabinase, α -arabinosidase, galactanase, galactosidase, mannanase, mannosidase, xylanase, xylosidase, protease, glucanase, or esterase activity.

237. (New) The isolated polynucleotide of claim 236, wherein said second peptide comprises a targeting sequence peptide.

238. (New) The isolated polynucleotide of claim 237, wherein said targeting sequence peptide targets the first polypeptide to a vacuole, endoplasmic reticulum, chloroplast, starch granule, or cell wall of a plant.

239. (New) The isolated polynucleotide of claim 237, wherein said targeting sequence is an N-terminal signal sequence from *Waxy*, an N-terminal signal sequence from γ -zein, a starch binding domain, or a C-terminal starch binding domain.

240. (New) An expression cassette comprising the isolated polynucleotide of claim 235.
241. (New) The expression cassette of claim 240, which is operably linked to a promoter.
242. (New) The expression cassette of claim 241, wherein the promoter is an inducible, tissue-specific, constitutive, or endosperm-specific promoter.
243. (New) The expression cassette of claim 242, wherein the endosperm-specific promoter is a maize γ -zein, rice glutenin-1, or a maize ADP-gpp promoter.
244. (New) The expression cassette of claim 243, wherein the maize γ -zein promoter is a 27-kD or 55kD gamma-zein promoter.
245. (New) The expression cassette of claim 243, wherein the promoter comprises SEQ ID NO: 11 or SEQ ID NO: 12.
246. (New) The expression cassette of claim 240, wherein the polynucleotide is oriented in sense orientation relative to the promoter.
247. (New) The expression cassette of claim 240, wherein the polynucleotide further encodes a targeting sequence which is operably linked to the polypeptide encoded by the polynucleotide.
248. (New) The expression cassette of claim 247, wherein the targeting sequence targets the operably linked polypeptide to a vacuole, endoplasmic reticulum, chloroplast, starch granule, or cell wall of a plant.
249. (New) The expression cassette of claim 248, wherein the targeting sequence is an N-terminal signal sequence from *Waxy*, an N-terminal signal sequence from γ -zein, or a starch binding domain.
250. (New) A cell comprising the expression cassette of claim 240.
251. (New) A plant, or part thereof, comprising the cell of claim 250.

252. (New) The cell of claim 250, wherein the cell is selected from the group consisting of an *Agrobacterium*, a monocot cell, a dicot cell, a Liliopsida cell, a Panicoideae cell, a maize cell, and a cereal cell.
253. (New) Seed, fruit, stem, leaf, stalk, or grain from the plant of claim 251.
254. (New) The plant of claim 235, which is sugar beet, sugarcane, oats, barley, wheat, rye, corn, or rice.
255. (New) A method for preparing fermentable sugar, monosaccharide, or oligosaccharide comprising the steps of treating a transgenic monocot plant part comprising an enzyme cellulase, hemicellulase, exo-1,4-b-cellobiohydrolase, exo-1,3-b-D-glucanase, b-glucosidase, endoglucanase, L-arabinase, α -arabinosidase, galactanase, galactosidase, mannanase, mannosidase, xylanase, xylosidase, protease, glucanase, or esterase under conditions to activate the enzyme thereby digesting polysaccharide to form oligosaccharide, monosaccharide, or fermentable sugar, wherein the plant part is obtained from a transformed monocot plant, the genome of which is augmented with an expression cassette comprising a promoter operably linked to a polynucleotide encoding the enzyme and a targeting sequence.
256. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 255, wherein the promoter is an inducible, tissue specific, endosperm-specific, or a constitutive promoter.
257. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 256, wherein the endosperm-specific promoter is a maize γ -zein, rice glutenin-1, or a maize ADP-gpp promoter.
258. (New) The expression cassette of claim 257, wherein the maize γ -zein promoter is a 27-kD or 55kD gamma-zein promoter.
259. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 257, wherein the promoter comprises SEQ ID NO: 11 or SEQ ID NO: 12.

260. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 255, wherein the plant part is a seed, fruit, stem, leaf, stalk, or grain.
261. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 255, wherein the plant part is obtained from sugar beet, sugarcane oats, barley, wheat, rye, corn, or rice.
262. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 255, wherein treating comprises heating the plant part for an amount of time and under conditions to activate the enzyme thereby digesting polysaccharide to form monosaccharide, oligosaccharide, or fermentable sugar.
263. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 255, wherein said enzyme is encoded by the polynucleotide sequence comprising SEQ ID NO. 61, 63, 65, 69, 73, 74, 75, 76, 77, 78, 79, 81, 83, 85, 87, 89, 91, 93, 94, 95, 96, 97, 99, 101, 103, 105, 107, 109, or 111.
264. (New) The method for preparing fermentable sugar, monosaccharide, or oligosaccharide according to claim 255, wherein said polynucleotide sequence encodes a polypeptide comprising SEQ ID NO: 62, 64, 66, 70, 80, 82, 84, 86, 88, 90, 92, 100, 102, 104, 106, 108, 110, or 112.
265. (New) The method of claim 255, further comprising the step of incubating the monosaccharide, oligosaccharide, or fermentable sugar under conditions that promote the conversion of the oligosaccharide or fermentable sugar into ethanol.